User Guide

NMP-500

Network Media Player (NMP)

ViewSonic®

the choice of professionals

Product Registration

To meet your future needs, and to receive any additional product information as it becomes available, please register your product on the Internet at: **www.viewsonic.com**. The **ViewSonic** product may come with a CD-ROM that has a registration form you can print and mail or fax to **ViewSonic Corporation**.

For Your Records		
Model Name:	**NMP-500**	
Model Number:	**VS11253**	
Document Number:	**NMP-500_UG_ ENG_Rev1F**	**21 AUGUST 2006**
Serial Number:	_____	
Purchase Date:	_____	

Product disposal at end of product life

ViewSonic is concerned about the preservation of our environment. Please dispose of this product properly at the end of its useful life. Your local waste disposal company may provide information about proper disposal.

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INTRODUCTION

Thank you for buying the **ViewSonic® Network Media Player**. This section introduces you to the **NMP-500**.

PACKAGED CONTENTS

Please check that all the following items are in the package:

S-Video/YPbPr Adapter   DVI-VGA Adapter   AC Power Adapter

NMP-500

User Guide   Remote Control and Two Batteries   Quick Start Guide

REQUIREMENTS

The **NMP-500** requires the following:

SYSTEM REQUIREMENTS

System requirements include a display, a network environment, and a PC with network capability.

PC REQUIREMENTS

- Operating System: Any Windows® or Linux OS capable of running a web server
- Processor: Intel® Pentium® 4, 1 GHz or higher (or compatible microprocessor)
- Memory: 512 MB RAM or more
- Display: 1024 x 768 pixels or greater
- Network Interface: 100Base-TX

SOFTWARE REQUIREMENTS

Software applications need to be purchased separately in order to create material for playback, such as graphics, video, and Flash files, etc.

FEATURES

- Replaces the remote PC that would typically run and drive a plasma or LCD for digital signage

- Network ready for easy installation

- Ready to handle many layers of high-quality graphics, text, and video with integrated Internet Explorer browser, Flash player, and HD player integrated

- Powerful hardware processor for robust and smooth playback of high-definition and Flash content

- Supports a variety of graphics and video formats including full-color, JPEG, Macromedia Flash, and HTML

- MPEG1, MPEG2, MPEG4, WAV support

- Built on open standards to support a wide variety of other vendors' PDPs, LCDs and projectors and it integrates with a multi-vendor networking environment

- Efficient and cost effective solution for digital signage

- Devices can be remotely controlled with a user-friendly web interface from virtually anywhere on a network or the Internet

- Can be managed with Tivella Administration Server (TAS) software and Cisco ACNS software

- Display content in landscape or portrait mode

# TWO MODES OF COMMUNICATION

There are two modes of communication with the **NMP-500**: an HTTP web interface and a Telnet advanced command line interface. This document focuses on the web interface only. Web-based interface is executed using the HTTP protocol.

*To start communicating with the **NMP-500**, follow the step-by-step instructions in the section called **SETTING UP THE NMP-500** in this guide.*
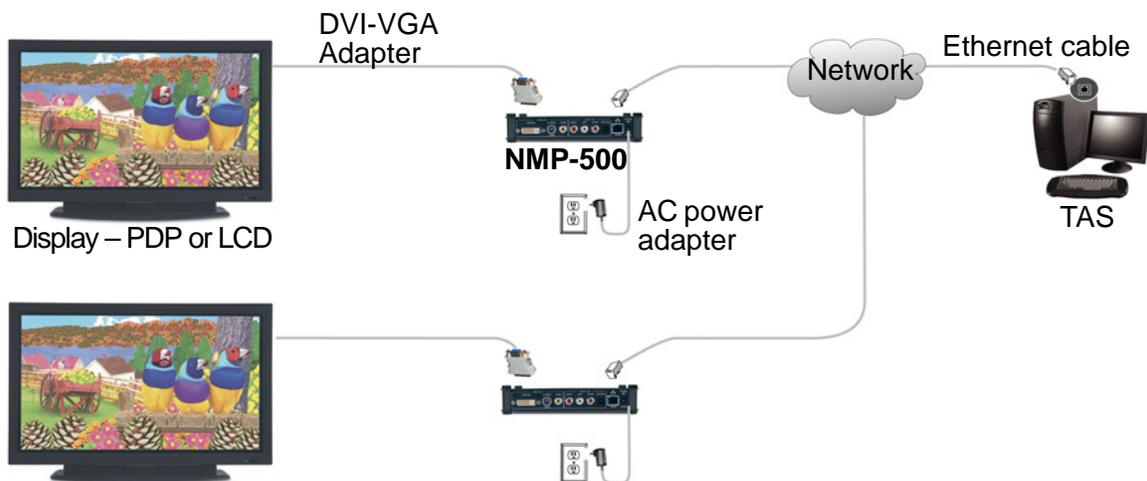
TWO MODES OF OPERATION

STANDALONE

This setup allows the **NMP-500** to act as an independent network device used to control a Plasma Display Panel (PDP) or a Liquid Crystal Display (LCD) for digital signage or narrowcasting applications.
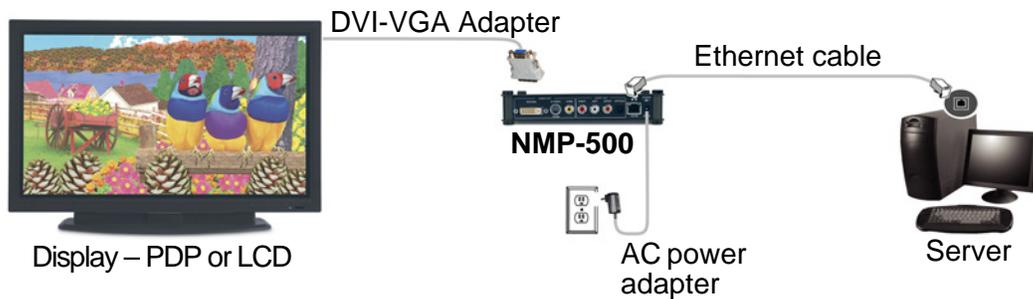
TAS MANAGED

You can purchase TAS separately through Tivella (www.tivella.com or a Tivella dealer/reseller). A TAS server should be used to configure and manage multiple **NMP-500**s remotely. TAS provides centralized scheduling of video content presentation on multiple **NMP-500**s, as well as management and seamless operation of a Cisco® ACNS Content Distribution Networking infrastructure if one is installed. This configuration greatly reduces maintenance overhead, when TAS and the **NMP-500** are connected to the network (LAN/WAN) with the TAS acting as a manager for multiple **NMP-500**s.

FRONT VIEW

Blue LED: Power   Green LED: Activity

BACK VIEW

VIDEO OUT   AUDIO OUT

DVI/VGA

S-VIDEO/YPbPr

CVBS

RIGHT

LEFT

S/PDIF

OPTICAL

Ethernet 10/100

Power-5V DC

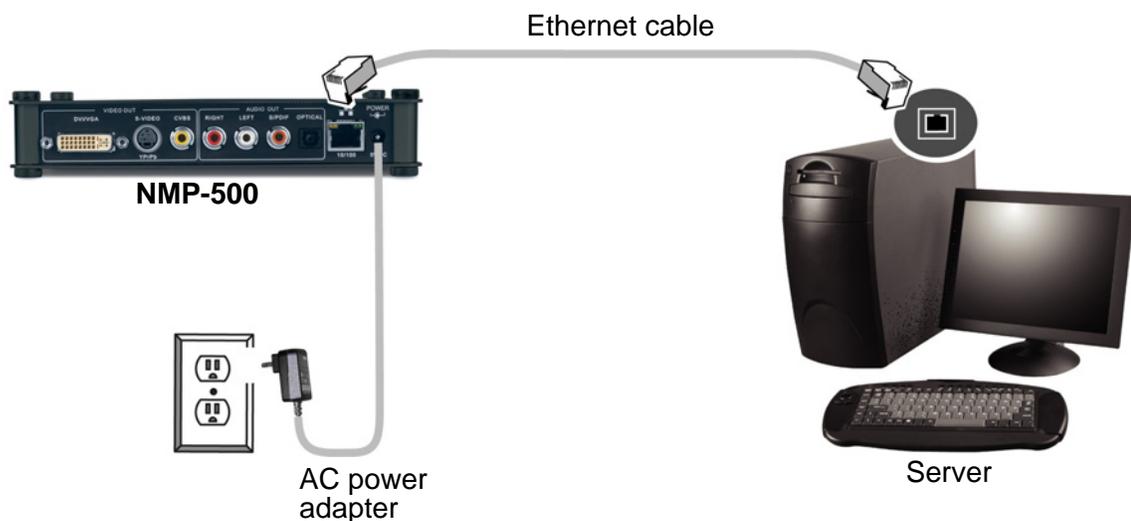# REMOTE CONTROL

POWER button
On/Standby
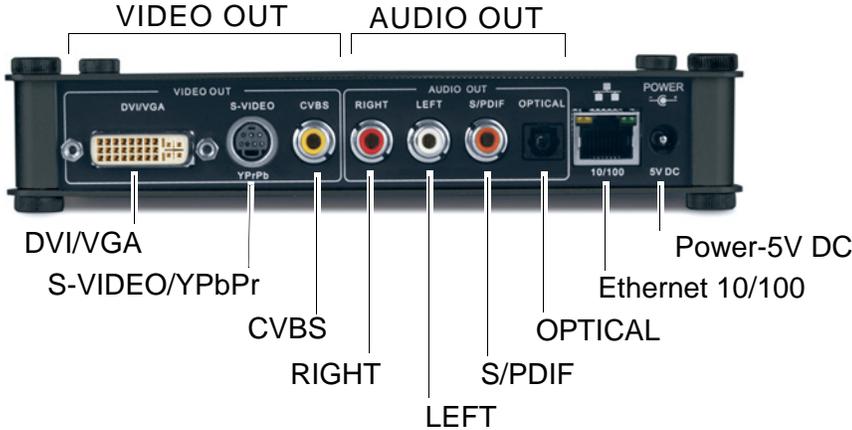
SETUP

IMPORTANT! BE SURE TO CONFIGURE THE NMP-500 AS SHOWN IN THE FOLLOWING STEPS BEFORE CONNECTING TO THE NETWORK!

1. CONNECT NMP-500 TO PC

Use an Ethernet cable to connect the **NMP-500**. Use the AC power adapter included to connect the **NMP-500** to an AC power source like a wall outlet.

2. MANUALLY CONFIGURE YOUR PC

Using Windows XP, click the **Windows Start** button in the task bar > right-click on **My Network Places** > select **Properties** > right-click on the **Network Connection** associated with your **Network Adapter** and select **Properties** > click **Internet Protocol (TCP/IP)** and click **Properties**.

Enter a **Static IP Address** for example 192.168.12.x, in the same range as the **NMP-500**.

3. LOGIN

Open an Internet Browser, i.e., **Internet Explorer**. In the **URL address field**, type in the default IP address of the **NMP-500** (192.168.12.100) > press **Enter**. The **Login** screen appears. Type in the default **Login** and **Password**.

|	
Login:	admin
Password:	admin

For security purposes, we recommend that you change the default IP address, Login and Password. *For more information, see the **Security** section in this user guide.*

After logging in successfully, the **Network Configuration** screen appears. **Note:** The **NMP-500** automatically logs you out after fives minutes of inactivity.

For information on how to change network settings on an OS other than Windows, please consult the OS user guide or your Network Administrator.

4. CONNECT THE NMP-500 TO A DISPLAY

Connect the **NMP-500** to a display such as a Plasma Display Panel (PDP) or a Liquid Crystal Display (LCD).
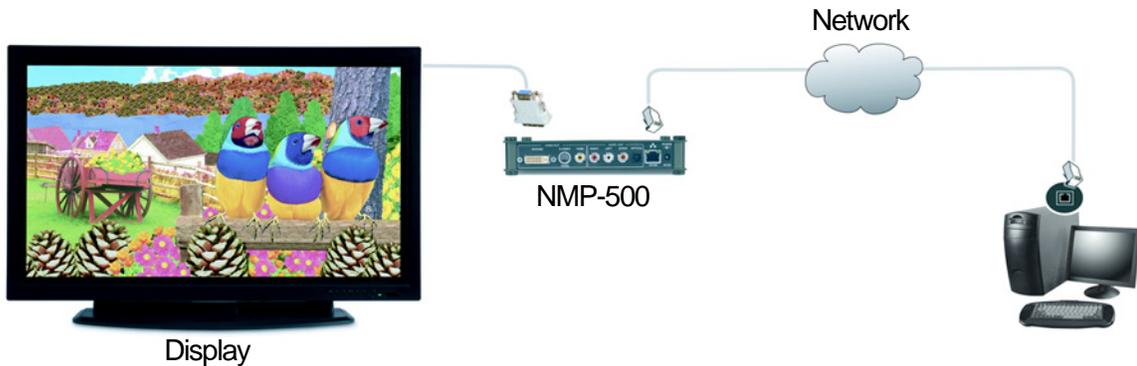
By default, the video output is set to S-Video. But, you can choose one of the following connections if you prefer:

S-Video: Default. Connect an S-Video cable from the S-Video interface on the back of the **NMP-500** to the S-Video interface on the back of the display.

DVI   Connect a DVI cable from the back of the **NMP-500** to the DVI interface on the back of the display.

VGA: Using the DVI-VGA adapter included, connect a VGA cable from the VGA interface on the back of the **NMP-500** to the VGA interface on the back of the display (PDP or LCD). **Note**: do not use both a VGA connection and a YPbPr connection at the same time.

Component: Using the S-Video/YPbPr adapter.

Composite: Using an RCA cable.

Click the **Show IP** button shown below. The **IP address** appears on-screen momentarily then disappears after about four seconds. If the **IP address** does not appear, check that the **NMP-500** and the display are set to the same video output settings: i.e., S-Video to S-Video, or VGA to VGA, etc. To change the output setting, login to the **NMP-500** (Step 3) and select **Management** > **Video/Audio** for the screen shown below. *For more information, see the **Video/Audio Configuration** section later in this guide.*

Show IP
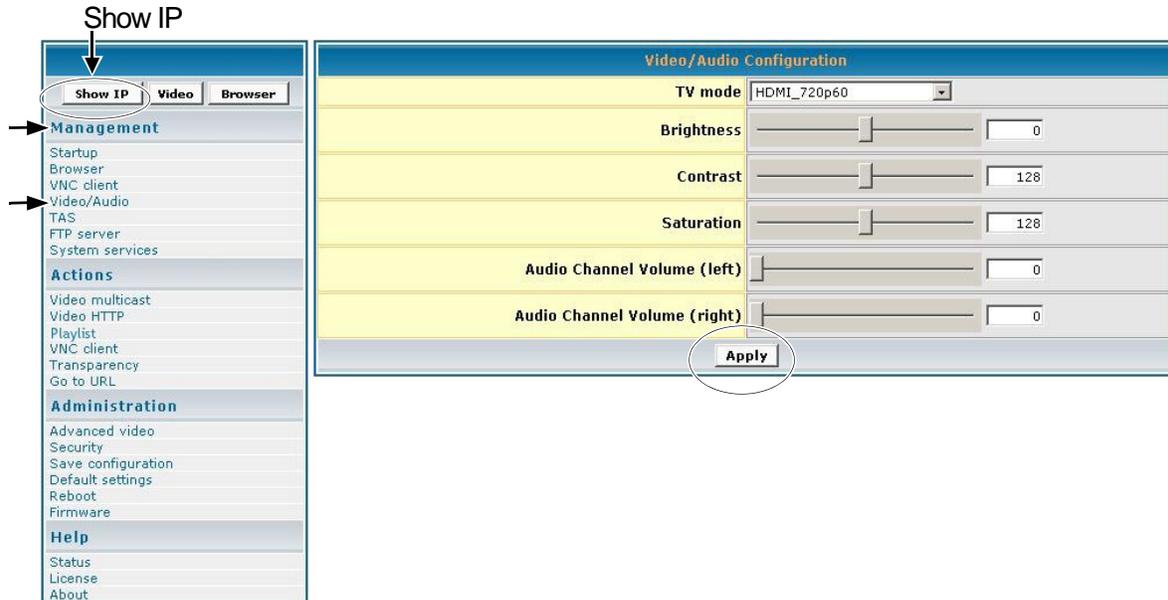
1   In the **TV Mode** field, click the down arrow for the pull-down menu and select one of the resolutions required by your display (PDP or LCD).

2   Move the **Brightness** slider: values range between -128 and 127

3   Move the **Contrast** slider: values range between 0 and 255

4   Move the **Saturation** slider: values range between 0 and 255

5   Move the **Audio Channel Volume** (left) slider: values range between 0 and 100

6   Move the **Audio Channel Volume** (right) slider: values range between 0 and 100

7   If any changes were made to this screen, do the following:
   - To enable the changes, click **Apply**
   - To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

5. Put Batteries in Remote Control

Remove the back cover from the remote control as shown below. Put two AA batteries in the battery compartment. Be sure to match the positive end of the battery with the positive end in the compartment. Put the cover back on the remote control.

MANAGEMENT

STARTUP URLS/NETWORK CONFIGURATION

The **Network Configuration** screen allows you to select the video that appears on-screen when you boot up the **NMP-500**. To go to the **Network Configuration** screen after logging into the **NMP-500**, select **Management** > **Startup**. The **Startup URLs** screen and the **Network Configuration** screen appears as shown below.
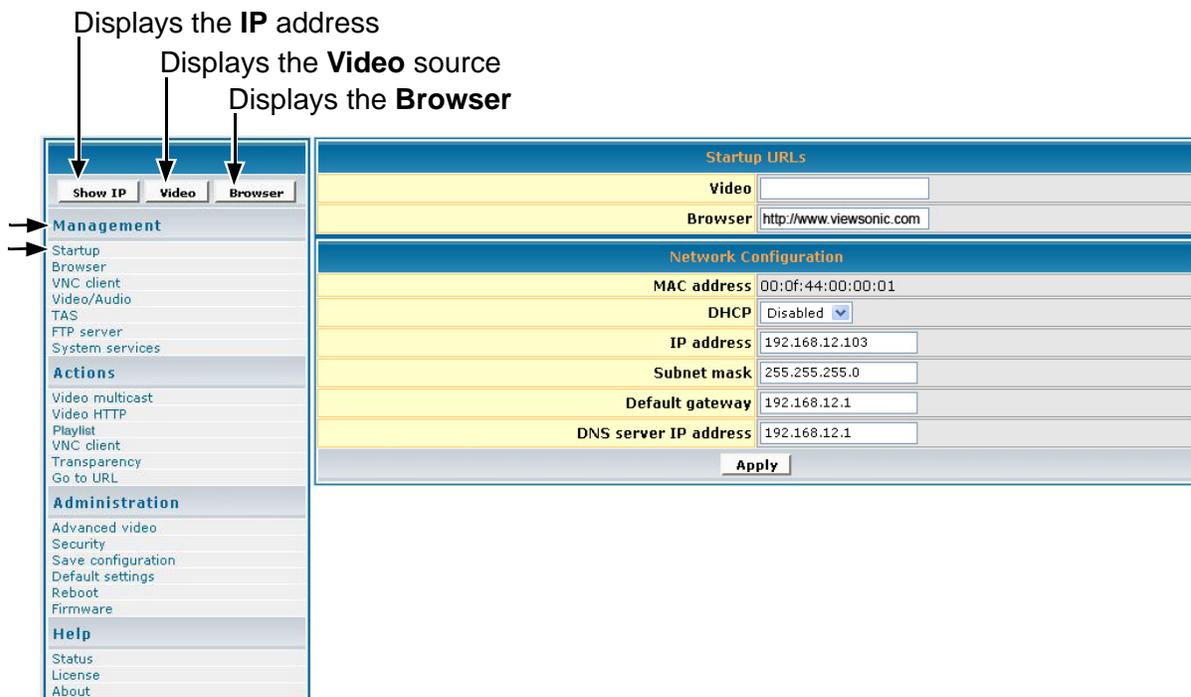

1   To play a particular video at startup, in the **Video** field, enter a valid HTML page. Here are some examples:

- **http:**//<ip-address->/<mpeg-1/2-file-located on WEB Server>
- **udp:**//<ip-multicast-address>/port
- **rtp:**//<multicast-address>/port
- **iptv:**//<ip-multicast-address>/videoport/audioport
- **playlist=http:**//<ip-address>/<playlist-file-located-on-WEB-server>

2   In the **Browser** field, enter a startup web screen (for example, http://www.viewsonic.com).
    Note: The **MAC address** is a read-only field that displays the built-in MAC address of the unit.

3   In the **DHCP** field of the **Network Configuration** screen, tap the down arrow for the pull-down menu and select **Enabled** to dynamically get network parameters. Make sure there are values in the **IP address**, **Mask**, **Gateway**, and **DNS** fields although DHCP assigns values to these fields automatically. If you select **Disabled**, type valid network parameters in these fields.

4   If any changes were made to this screen, do the following:
    • To enable the changes, click **Apply**
    • To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

BROWSER CONFIGURATION

The **Browser Configuration** screen allows you to make specific screen settings for a specific URL that you chose. Click **Management** > **Browser**. The screen shown below appears. Note: 1 millisecond = 1/1000th second.
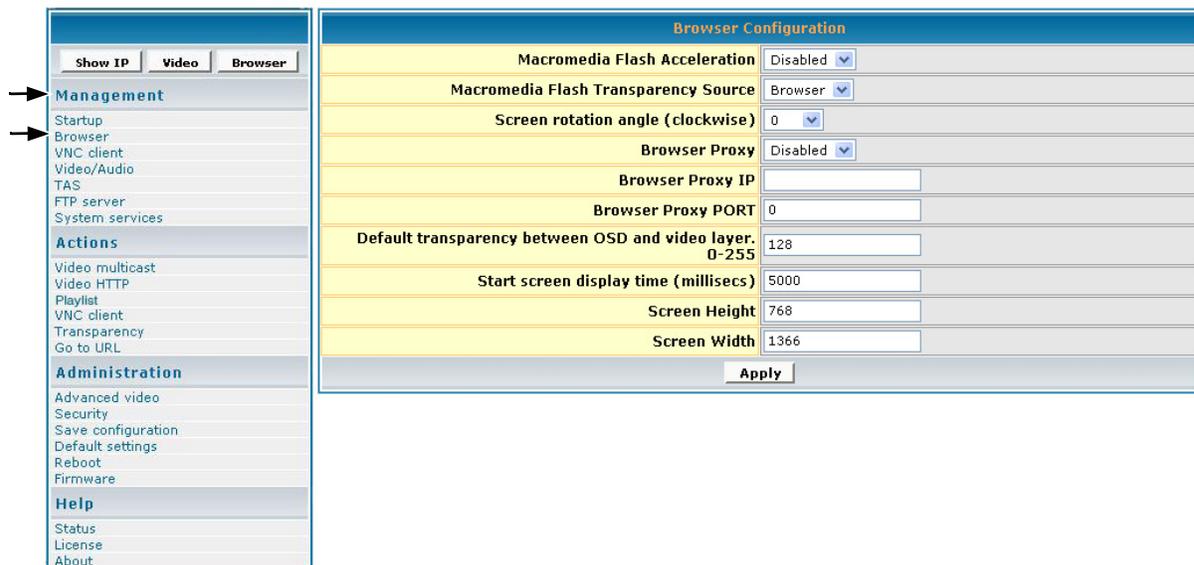
1   In the **Macromedia Flash Transparency Source** field, select one of the options from the pull-down menu.

2   In the **Screen rotation angle (clockwise)** field, select one from the pull-down menu for the angle of rotation of the HTML content displayed on-screen. This feature is useful when the **NMP-500** is installed vertically.

3   In the **Browser Proxy** field, select **Enabled** or **Disabled** from the pull-down menu.

4 In the **Browser Proxy IP** field, type an IP address if the **Browser Proxy** was Enabled.

5 In the **Browser Proxy PORT** field, type the port if the **Browser Proxy** was Enabled.

6 In the **Default transparency between OSD and video layer** field, type a number that is between 0 to 255: (128 is average where video and graphics blend together). Also, see examples in the Transparency section of this guide.
   - 0 = video only, no graphics
   - 255 = graphics only, no video

7 In the **Start screen display time** field, type the number of milliseconds you want the initial screen to be displayed at startup. (1 millisecond = 1/1000 second)

8 In the **Screen Height** field, type the height of the screen that is displaying your graphics image.

9 In the **Screen Width** field, type the width of the screen that is displaying your graphics image.

10 If any changes were made to this screen, do the following:
   - To enable the changes, click **Apply**
   - To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

VNC CLIENT

The **VNC client configuration** screen shown below on the **Management** menu lets you set the device to start as a VNC client and connect automatically to the VNC server specified. This auto-start feature works only if the **VNC client** under **System services** is set to **YES** or **Enabled**.

VNC server password must be at least 6 characters (can be alpha-numeric).

X and Y coordinates let you set the size of the window of the remote desktop displayed if full screen is not desired.

VNC full screen mode lets you set the client to start up as full screen all the time.

VNC auto restart mode reconnects the client in the event of network interruption.

Delay before restart VNC sets the time between reconnects.

VIDEO/AUDIO CONFIGURATION

This screen is used to adjust the display and audio parameters. Click **Management** > **Video/Audio**. The screen shown below appears.
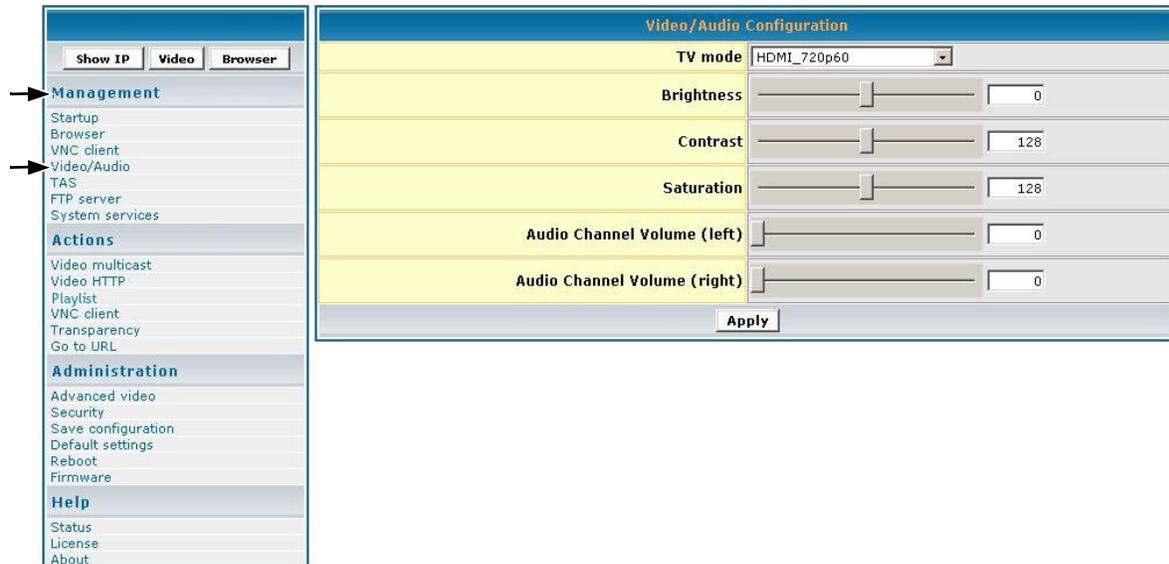
1 In the **TV Mode** field, click the down arrow for the pull-down menu and select one of the options.

2 Move the **Brightness** slider: values range between -128 and 127

3 Move the **Contrast** slider: values range between 0 and 255

4 Move the **Saturation** slider: values range between 0 and 255

5 Move the **Audio Channel Volume** (left) slider: values range between 0 and 100

6 Move the **Audio Channel Volume** (right) slider: values range between 0 and 100

7 If any changes were made to this screen, do the following:
   • To enable the changes, click **Apply**
   • To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

TAS CONFIGURATION

This screen works in conjunction with **TAS**. (TAS software can be purchased through Tivella at www.tivella.com or through an authorized Tivella dealer/reseller.) Click **Management** > **TAS**. The screen shown below appears.
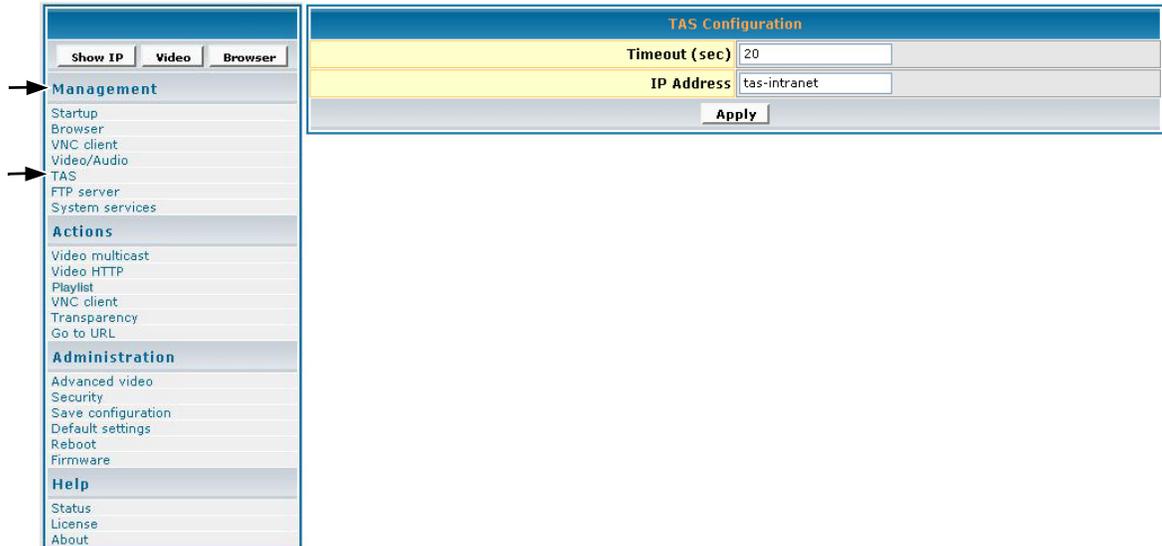

1   In the **Timeout (sec)** field, type the number of seconds for the **NMP-500s** to access TAS.

2   In the **IP Address** field is a valid DNS name automatically generated by TAS when connected to a network but empty when used as a standalone.

3   If any changes were made to this screen, do the following:
- To enable the changes, click **Apply**
- To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

NOTE: FTP server is only for Network Displays with local storage.

SYSTEM SERVICES CONFIGURATION

Configure System Services in the MIB (Management Information Base) to manage the following groups: Network, Browser, Video/Audio, TAS, and System Services. Click **Management** > **System services**. The screen shown below appears.

System Services Configuration	
Network Media Player (port 6666)	Yes
MIB Event Notification	No
Apply	
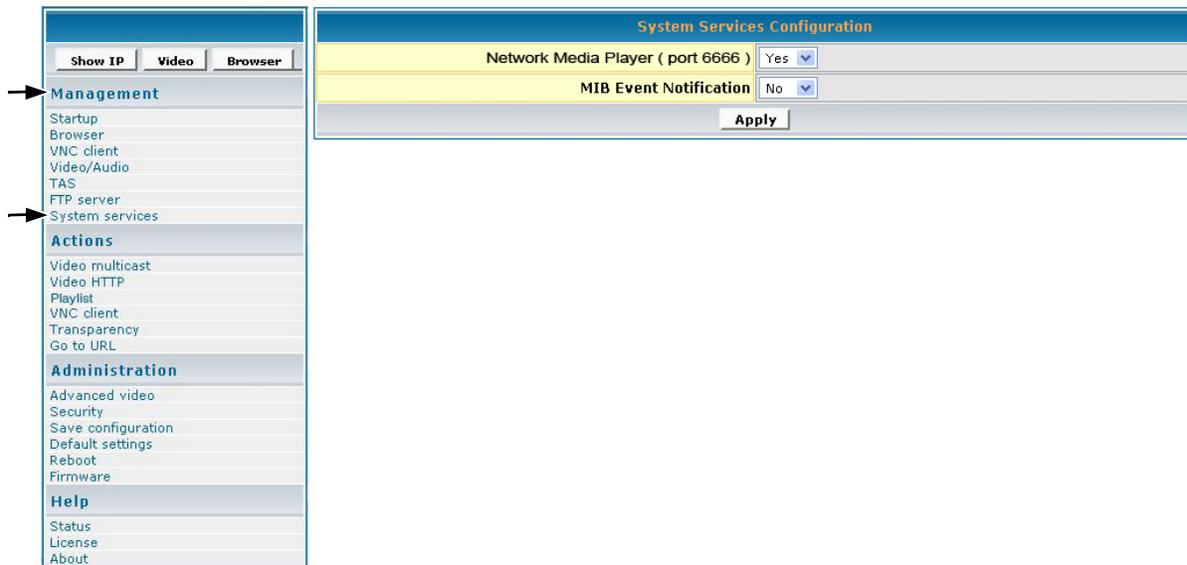
1   In the **Network Media Player (port 6666)** field, select **Yes** to access the **NMP-500** using a Telnet client on port 6666. If you do not want this, select **No**.

2   In the **MIB Event Notification** field, select **Yes** to be notified of changes that you made to the **NMP-500** settings.

3   If any changes were made to this screen, do the following:
   - To enable the changes, click **Apply**
   - To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

ACTIONS

This section mainly concerns video related activities. Video can be streamed by UDP, RTP, IP/TV or HTTP stream and organized in Playlists. When you initiate a stream, you can see the video on your display. You can also change the **Transparency** of the OSD or go to a specific URL on the fly.

VIDEO MULTICAST

This screen allows you to play streams using the assorted protocols. Select **Actions** > **Video multicast**. The screen shown below appears.
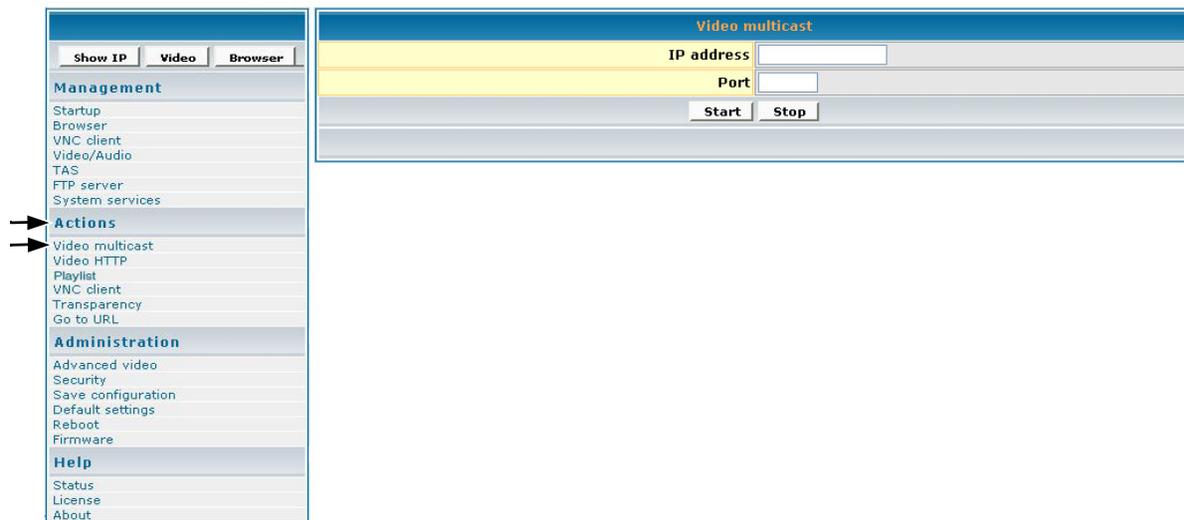
1   In the **IP address** field, type the IP Address transmitting UDP based multicast stream (for example, 239.1.1.7)

2   In the **Port** field, type the **Port** number used to receive the multicast.

3   To tell the system to listen to the UDP multicast stream from the IP on the Port that you entered, click **Start**.

Video HTTP

To get to the browser setup screen, click **Actions** > **Video HTTP**. The screen shown below appears.
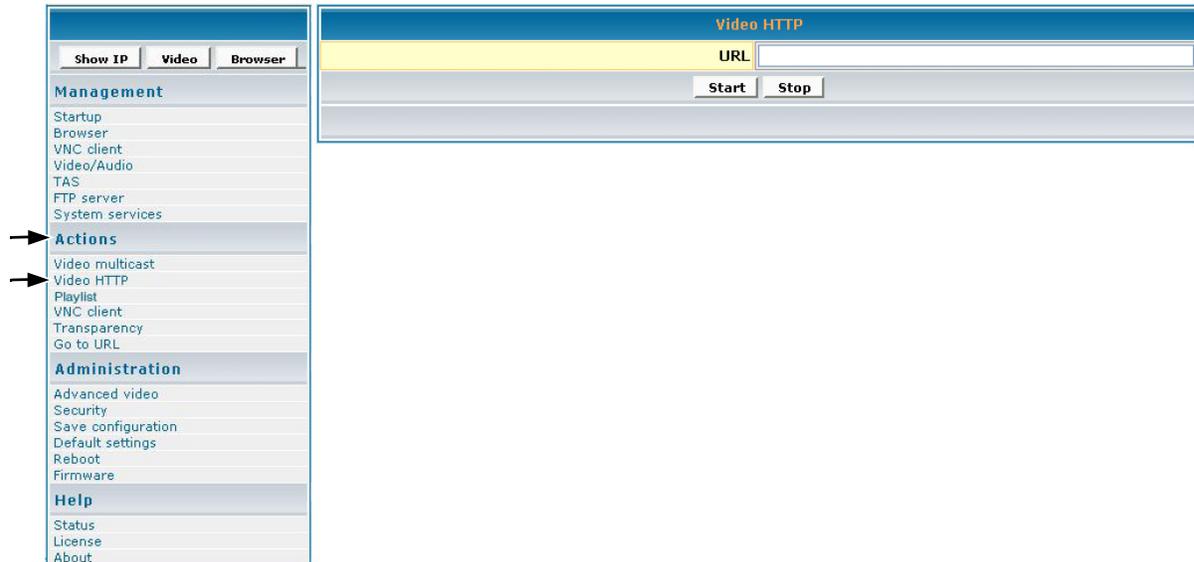
1 In the **URL** field, type the URL that corresponds to the HTTP stream that you want to appear on the display (for example: http:192.168.12.x/movie.mpg, or, http://<server-ip>/file.mpg).

2 To tell the system to listen to the HTTP stream from the entered URL, click **Start**.

PLAYLIST

To stream existing video **Playlist**s on an HTTP server, click **Actions** > **Playlist**. The screen shown below appears.
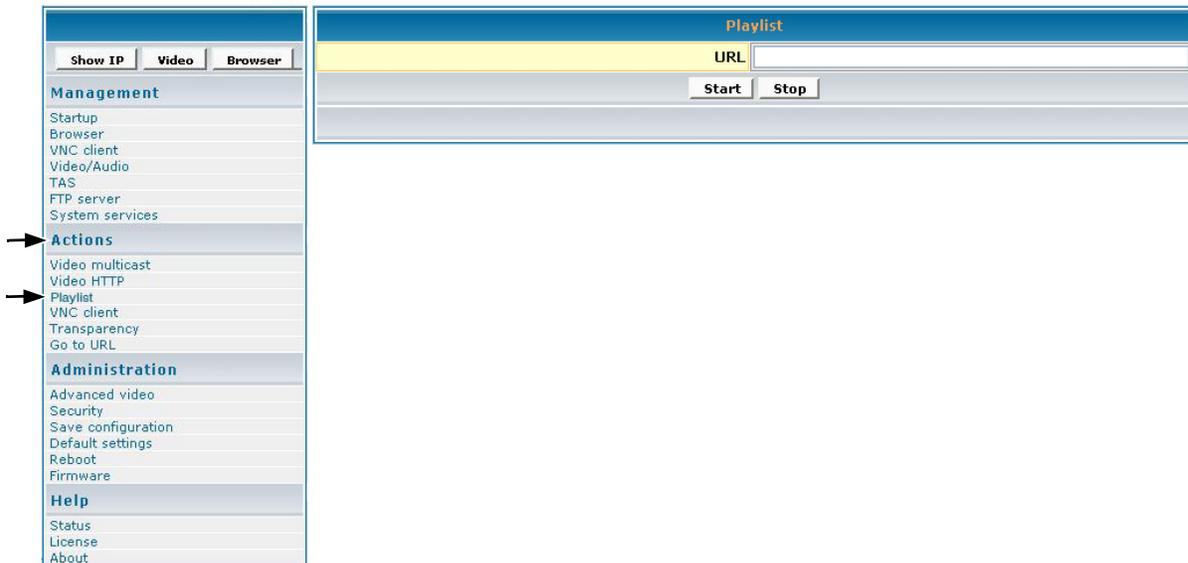
1   In the **URL** field, type the URL that corresponds to the **Playlist** to appear on the display (for example, http://192.168.12.x/playlist.txt or, type the address to start playback such as http:// <server-ip>/playlists.pls).

2   To tell the system to listen to the **Playlist** from the entered URL, click **Start**.

To create a playlist

A **Playlist** is a text file that can be created in any text editor with an extension of .txt. A **Playlist** is necessary when you want the **NMP-500** to play specific content, in a specific order, usually looped. A **Playlist** can be created for the http streams. Example of a looped **Playlist**:

```
loop
http   http://192.168.12.x/movie1.mpg
http   http://192.168.12.x/movie2.mpg
http   http://192.168.12.x/movie3.mpg
```

For a **Playlist** that is not looped, list the desired content without the keyword "loop."

VNC CLIENT

The VNC (Virtual Network Computing) client screen allows you to connect and display a remote desktop running a VNC server.
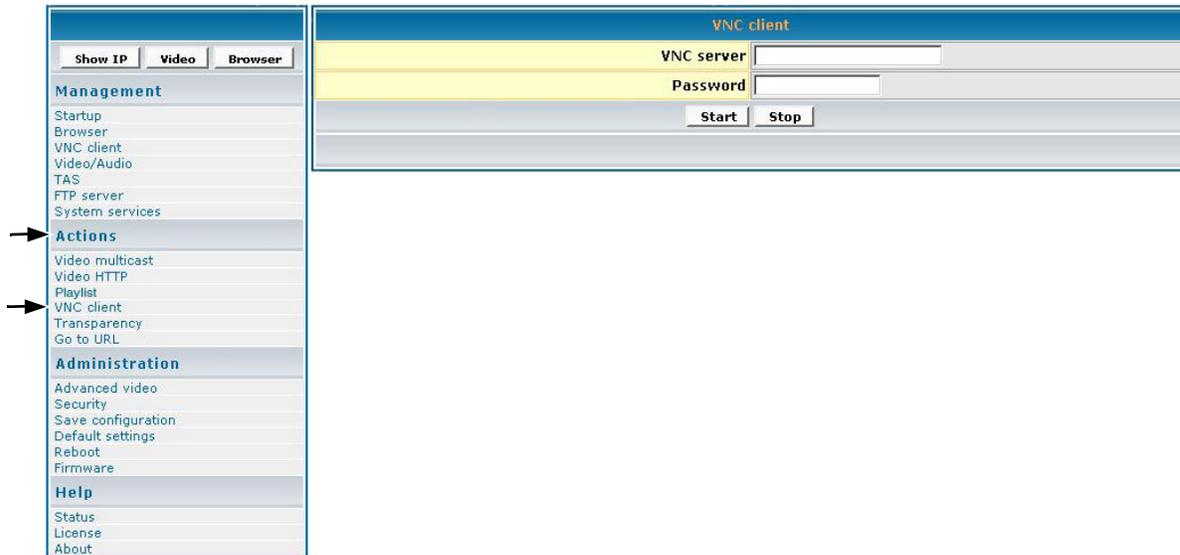

1   In the **VNC server** field, type the IP Address of the VNC server.

2   In the **Password** field, type the password of the VNC server whose IP is entered above.
    IMPORTANT! The password must be at least six (6) characters (can be alpha-numeric).

3   To display the remote desktop click **Start**.

TRANSPARENCY

To change the transparency of the browser on-screen in relation to the video image in the background, click **Actions** > **Transparency**. The screen shown below appears.
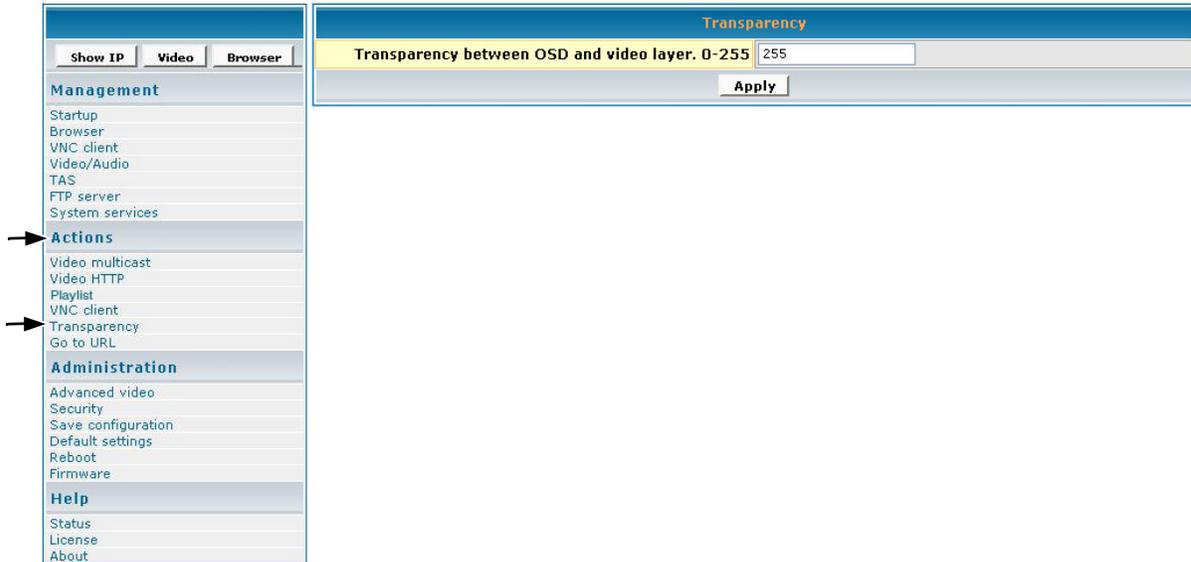
1   In the **Transparency between OSD and video layer** field, type a number between 0 to 255 for a more or less transparent (translucent) browser image (user interface) so you can still see through the browser OSD (On-Screen Display) shown below on the right with your video or other images: 0 = no OSD, 255 = no video, 128 = equal transparency between video and OSD layers.

OSD very transparent

OSD not transparent
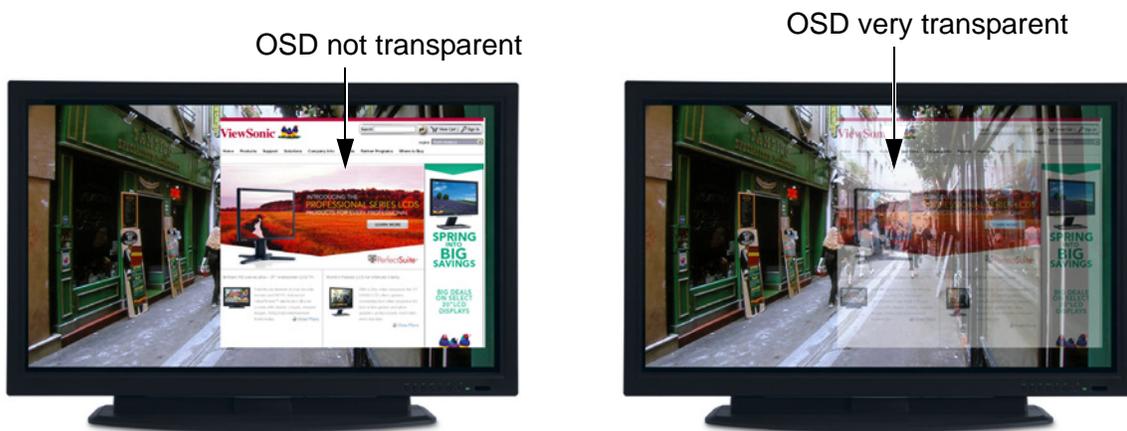
2   To apply the entered transparency value to the image on the **NMP-500**, click **Apply**.

GO TO URL

To go to a web page on the browser, click **Actions** > **Go to URL**. The screen shown below appears.
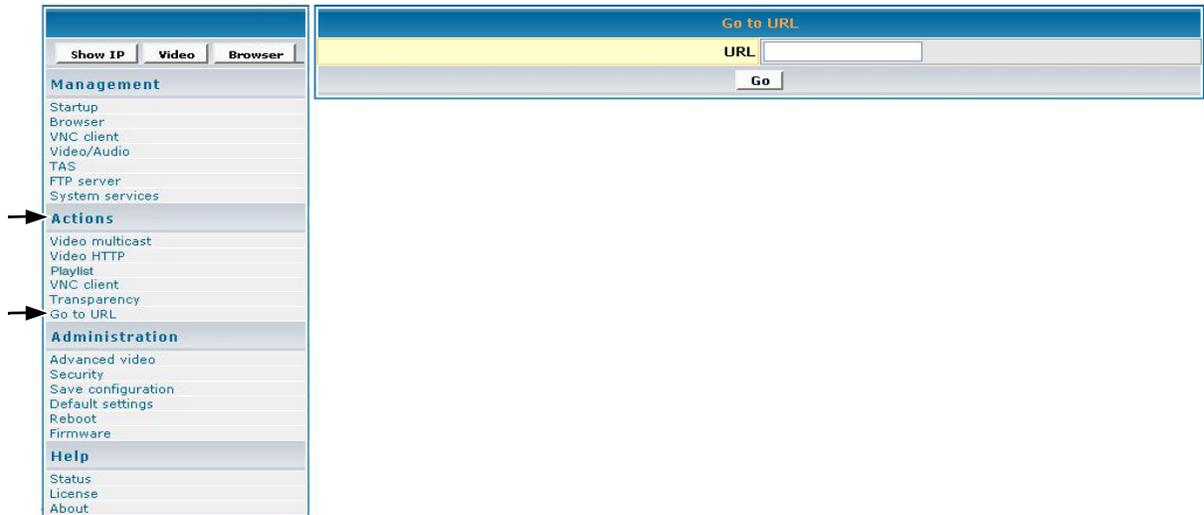
1   In the **URL** field, type the desired URL.

2   To redirect the browser to the URL that you entered, click **Go**. The web page appears on your display.

ADMINISTRATION

ADVANCED VIDEO CONFIGURATION

To adjust the size and location of the video on the screen, click **Administration** > **Advanced video**. The screen shown below appears.

1   In the **X of destination window**, type the center point of the screen on the X axis.

2   In the **Y of destination window**, type the center point of the screen on the Y axis.

3   In the **Width of destination window**, type the width of the destination window.

4   In the **Height of destination window**, type the height of the destination window.

5   If any changes were made to this screen, do the following:

   • To enable the changes, click **Apply**

   • To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.

SECURITY

To change the **User name** and **Password** of the **NMP-500**, click **Administration** > **Security**. Current settings automatically appear in each field as shown below: default User name/ Password is admin/admin.

1 In the **Password** field, type a new password.

2 In the **Repeat Password** field, re-type the new password.

3 If any changes were made to this screen, do the following:

   - To enable the changes, click **Apply**
   - To save the changes, click the **Administration** menu > click **Save Configuration** > click **Save**.
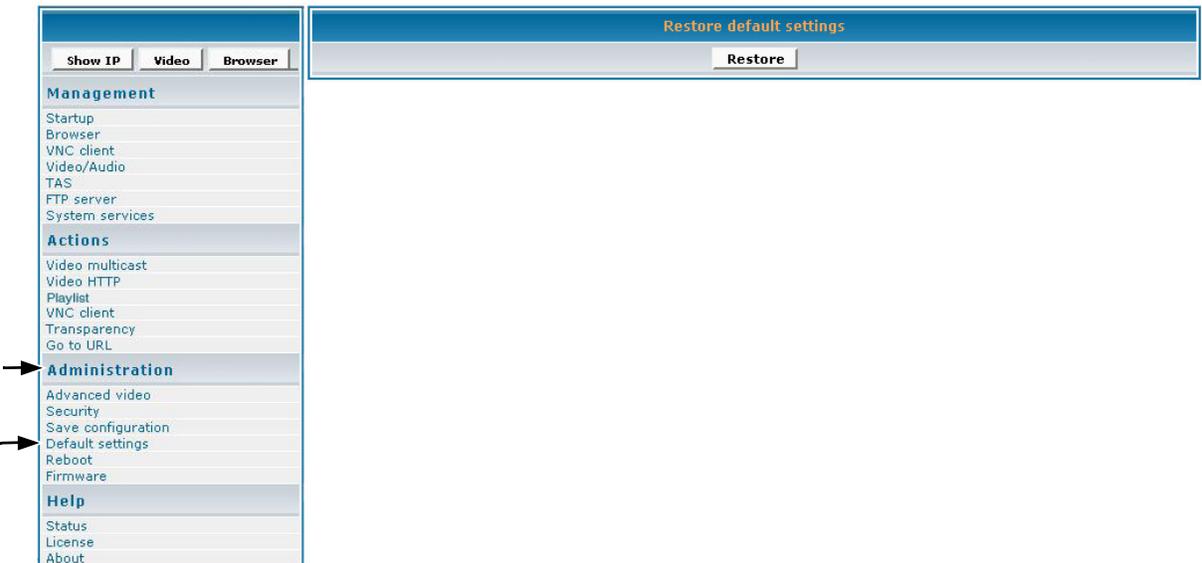
SAVE CONFIGURATION

To save your settings on the **NMP-500**, click **Administration** > **Save Configuration**. The screen shown below appears. Click **Save**.
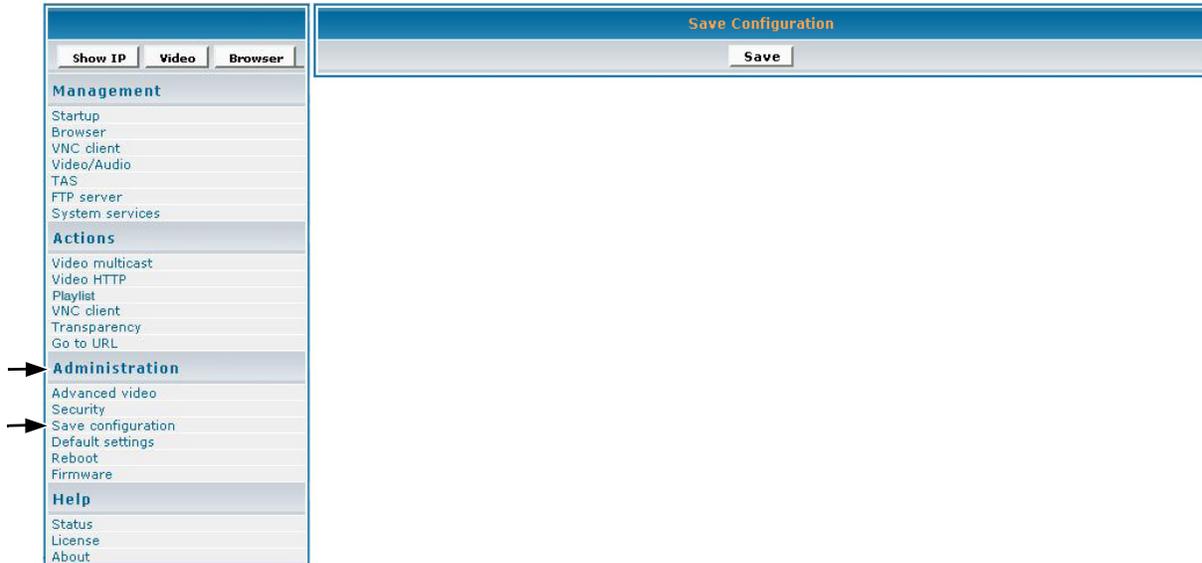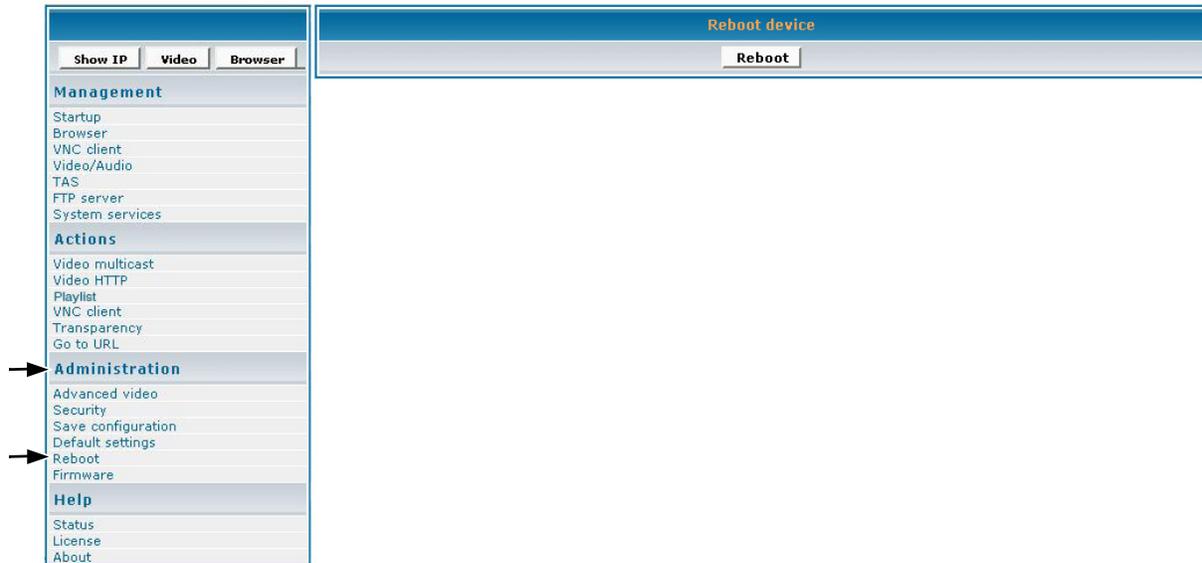

DEFAULT SETTINGS

To restore the **NMP-500** back to factory settings, click **Administration** > **Default Settings**. The screen shown below appears. Click **Restore**. User-defined settings will be lost.
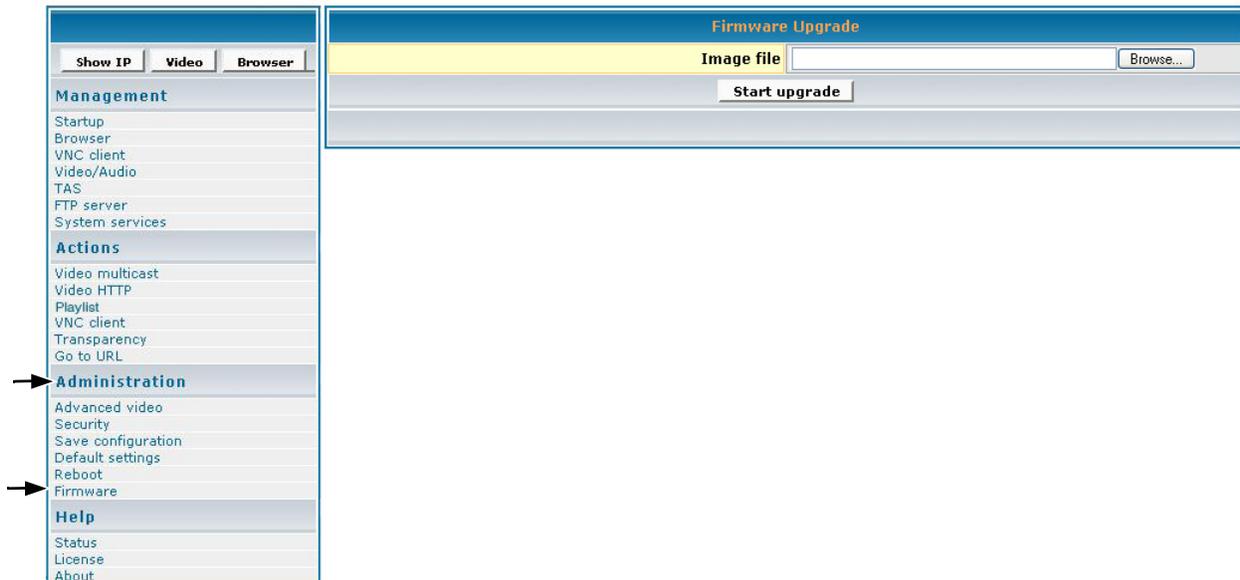
REBOOT

To reboot the **NMP-500**, click **Administration** > **Reboot**. The screen shown below appears.
Click **Reboot**. The **NMP-500** reboots.

FIRMWARE UPGRADE

To upgrade the firmware on the **NMP-500**, click **Administration** > **Firmware**. The screen shown below appears. Click **Browse** to open the firmware file > click **Start upgrade**.
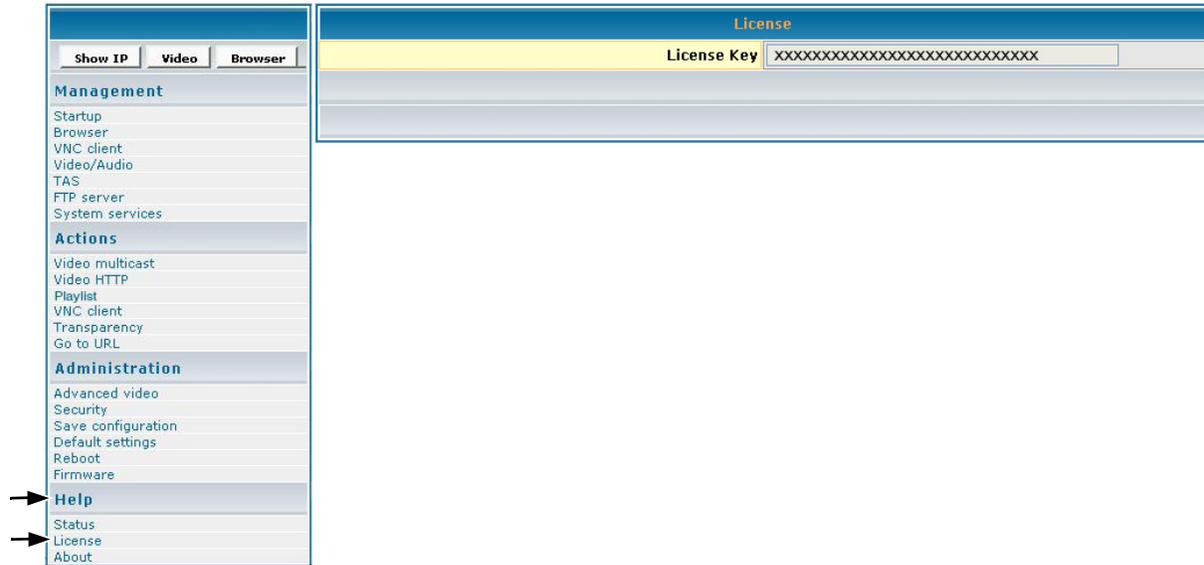
HELP

STATUS

Status refers to the log where you can track activity on a specific **NMP-500**. To show the **Status** log, click **Help** > **Status**. The screen shown below is for information only (no inputs).
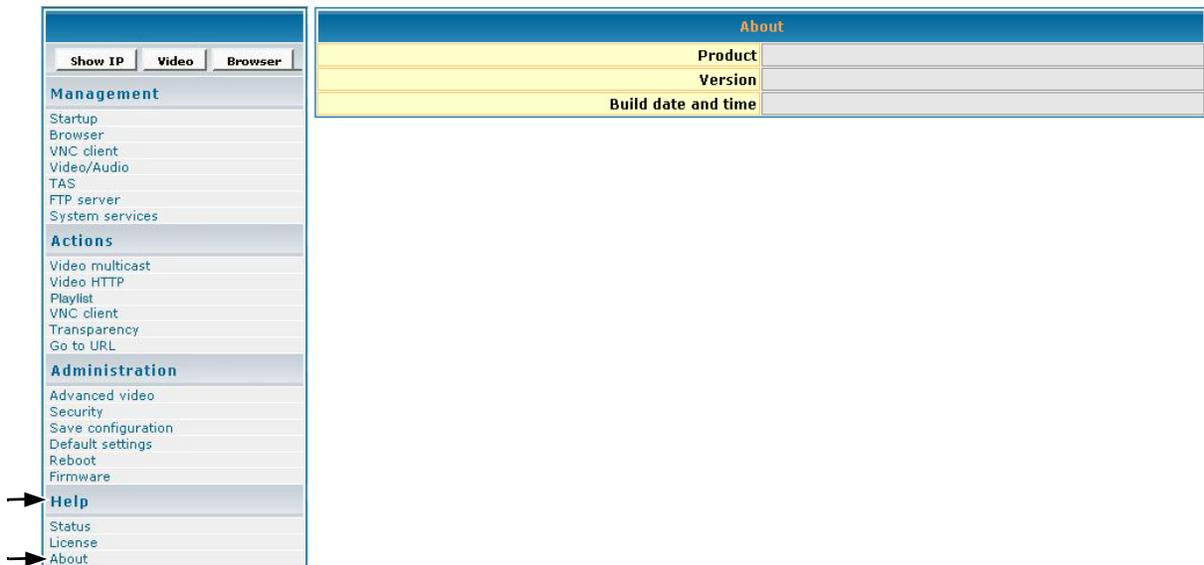
LICENSE

To activate the license on the **NMP-500**, click **Help** > **License**. The **License Key** may appear automatically in the screen shown below (read-only).

ABOUT

To show the current version of the product, click **Help** > **About**. The screen shown below appears (information only).

APPENDIX

COMPLIANCE AND SAFETY NOTICES

Radio frequency interference (RFI) compliance

United States compliance notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation [distance] between the equipment and the receiver.
- Connect the equipment to an outlet on a different circuit than what the receiver is connected to.
- Consult the dealer or an experienced radio or television technician for help.

CAUTION: The Part 15 radio device operates on a non-interference basis with other devices operating at its frequency. Any changes or modification to said product not expressly approved could void the user's authority to operate this device.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Mercury warning

This product contains mercury. Dispose of in accordance to local, state and federal laws.

Canadian compliance notice

English: This digital apparatus does not exceed the Canada ICES-003 Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

French: Le present appareil numerique nemet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de Canada ICES-003 Class B prescrites dans le reglement sur le brouillage radioelectrique edicte par le Ministere des Communications du Canada.

European compliance notice

Products with the CE Marking comply with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms:

- EN55022 (CISPR 22) Radio Frequency Interference
- EN55024 (IEC61000-4-2, -4-4, -4-5, -4-6, -4-11)
- EN60950 (IEC950) Product Safety

Declaration of RoHS Compliance

This product has been designed and manufactured in compliance with Directive 2002/95/EC of the European Parliament and the Council on restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Directive) and is deemed to comply with the maximum concentration values issued by the European Technical Adaptation Committee (TAC) as shown below:

Substance	Proposed Maximum Concentration	Actual Concentration
Lead (Pb)	0.1%	< 0.1%
Mercury (Hg)	0.1%	< 0.1%
Cadmium (Cd)	0.01%	< 0.01%
Hexavalent Chromium (Cr^{6+})	0.1%	< 0.1%
Polybrominated biphenyls (PBB)	0.1%	< 0.1%
Polybrominated diphenyl ethers (PBDE)	0.1%	< 0.1%

Certain components of products as stated above are exempted under the Annex of the RoHS Directives as noted below. Examples of exempted components are:

1   Mercury in compact fluorescent lamps not exceeding 5 mg per lamp and in other lamps not specifically mentioned in the Annex of RoHS Directive

2   Lead in glass of cathode ray tubes, electronic components, fluorescent tubes, and electronic ceramic parts (e.g. piezoelectronic devices)

3   Lead in high temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead)

4   Lead as an allotting element in steel containing up to 0.35% lead by weight, aluminium containing up to 0.4% lead by weight and as a cooper alloy containing up to 4% lead by weight.

For EU-member states only as follows:

The mark shown to the right is in compliance with the Waste Electrical and Electronic Equipment Directive 2002/96/EC (WEEE). The mark indicates the requirement NOT to dispose the equipment as unsorted municipal waste, but use the return and collection systems according to local law.

Power supply safety notice

The power supply provided with this device is for use with this device only. Replace only with the same or equivalent type power supply as recommended by the manufacturer.

SCREENS

MANAGEMENT

Show IP   Video   Browser

Management
Startup
Browser
VNC client
Video/Audio
TAS
FTP server
System services

Actions
Video multicast
Video HTTP
Playlist
VNC client
Transparency
Go to URL

Administration
Advanced video
Security
Save configuration
Default settings
Reboot
Firmware

Help
Status
License
About

Startup URLs

Video	
Browser	http://www.viewsonic.com

Network Configuration

MAC address	00:0f:44:00:00:01
DHCP	Disabled
IP address	192.168.12.103
Subnet mask	255.255.255.0
Default gateway	192.168.12.1
DNS server IP address	192.168.12.1

Apply

Browser Configuration

Macromedia Flash Acceleration	Disabled
Macromedia Flash Transparency Source	Browser
Screen rotation angle (clockwise)	0
Browser Proxy	Disabled
Browser Proxy IP	
Browser Proxy PORT	0
Default transparency between OSD and video layer. 0-255	128
Start screen display time (millisecs)	5000
Screen Height	768
Screen Width	1366

Apply

VNC client configuration

VNC server address	
VNC server password	
X coordinate of VNC windows left-top corner	0
Y coordinate of VNC windows left-top corner	0
VNC full screen mode	No
VNC auto restart mode	No
Delay (in milliseconds) before restart VNC	5000

Apply

Video/Audio Configuration

TV mode	HDMI_720p60
Brightness	0
Contrast	128
Saturation	128
Audio Channel Volume (left)	0
Audio Channel Volume (right)	0

Apply

TAS Configuration

Timeout (sec)	20
IP Address	tas-intranet

Apply

System Services Configuration

Network Display (port 6666)	Yes
MIB Event Notification	No

Apply

ACTIONS

ADMINISTRATION

HELP

CUSTOMER SUPPORT

For the nearest ViewSonic® service provider, see the table below or contact your reseller. You will need the product's serial number on-hand when you call.

Country/Region	Website (for email address also)	T = Telephone F = FAX
United States	viewsonic.com	**T:** (800) 688-6688 **F:** (909) 468-1202
Canada	viewsonic.com	**T:** (866) 463-4775 **F:** (909) 468-5814
United Kingdom	viewsoniceurope.com	**T:** 0800 833 648 **F:** 01794 500801
Europe, Middle East, Baltic countries, and North Africa	viewsoniceurope.com	Contact your reseller
Australia and New Zealand	viewsonic.com.au	**T:** +61 2 9929 3955 **F:** +61 2 9929 8393
Singapore/India and Southeast Asia	viewsonic.com.sg	**T:** 65 273 4018 **F:** 65 273 1566
Taiwan	viewsonic.com.tw	**T:** 866 2 2246 3456 **F:** 866 2 8242 3733
Other Asia Pacific countries		Contact your reseller
South Africa	viewsonic.com/asia	**T:** 886 2 2246 3456 **F:** 886 2 8242 3668

SPECIFICATIONS

Resolution	Hz	DVI	VGA	Comp-onent	S-Video/CVBX
640 x 480	60	X	X		
	75	X	X		
800 x 600	60	X	X		
	75	X	X		
1024 x 768	60	X	X		
	75	X	X		
1280 x 1024	60	X	X		
	75	X	X		
1280 x 768	60	X	X		
	75				
1360 x 768	60	X	X		
	75				
CEA 480p		X	X	X	
CEA 720p		X	X	X	
CEA 1080i		X	X	X	
NTSC-M					X

Screen rotation	Landscape, Portrait (+90°, -90°)
Outer Dimensions	7" x 5.1" x 1.6"
Weight	Gross: 1.6 lbs Net: 0.9 lbs
Interfaces	10/100 Ethernet, RCA Video, Component Video – through S-Video Adapter, S-Video, CVBS (Composite Video), DVI/VGA, (VGA – through an adapter with DVI port) RCA Audio left, RCA Audio Right, S/PDIF, Optical
Power	Voltage DC 5V (max.), 100-240VAC
Pre-loaded software	Web browser with Flash Plug-in, Standalone Flash Player, HD Player
Streaming protocols (included but not limited to)	Multicast, HTTP, IP/TV, Playlists
Decoding	**Video:** MPEG-1, MPEG-2, MPEG-4, Macromedia® Flash™ **Audio:** MPEG-1, (layers 1 & 2), MP3, WAV, Dolby AC-3 pass-through
Image file formats	JPEG, PNG
System Memory	Main RAM: 128MB, Main FLASH: 32MB, Sigma RAM: 64MB

Environmental Conditions	**Operating temperature:** 10° ~ 40° C (50° ~ 104° F) recommended
	  Humidity 20~85% RH (non-condensing)
	Storage temperature: 0° ~ 60° C (32° ~ 140° F)
	  Humidity 5~85% RH (non-condensing)

Dimensions	7" (W) x 5.1" (H) x 1.6 " (D); 178 mm (W) x 130 mm (H) x 25 mm (D)
Regulatory approvals	FCC-15B, IC-ES003B, UL/c-UL, CB

X indicates supported resolution.

Specifications are subject to change without notice. Corporate names and trademarks stated herein are the property of their respective companies.

LIMITED WARRANTY

ViewSonic® Limited Warranty Terms and Conditions

How the Viewsonic Standard Limited Warranty works:

ViewSonic Corporation ("ViewSonic") warrants its products to be free from defects in material and workmanship during a specified length of time, or "Warranty Period", as indicated below. If a product proves to be defective in material or workmanship during the Warranty Period, ViewSonic will, at its sole option, repair or replace the product with a similar product. Replacement products or parts may include remanufactured or refurbished parts or components. The replacement product will be covered by the balance of the time remaining on the customer's original ViewSonic Limited Warranty. This warranty does not cover any software included with the product.

ViewSonic products are manufactured using new materials or new and used materials equivalent to new in performance and reliability. Spare parts may be new or equivalent to new. Spare parts are warranted to be free from defects in material or workmanship for the remainder of the Limited Warranty Period under proper and/or normal use of the ViewSonic Product in which they are installed.

During the Limited Warranty Period, ViewSonic will, at its sole discretion, repair or replace the defective component parts or the ViewSonic product. All component parts or hardware products removed under this Limited Warranty become the property of ViewSonic. In the unlikely event that your ViewSonic Product has a recurring failure, ViewSonic will, at its sole discretion, provide you with a replacement unit of ViewSonic's choosing that is similar or equivalent to your ViewSonic originally purchased product in hardware and/or performance.

How long the warranty is effective:

ViewSonic warrants that its hardware will be free from defects in workmanship and materials, under proper normal use, and as set forth below:

- Hardware and Power Supplies: One (1) Year
- Accessories, spare parts, and spare kits: Ninety (90) days

The Warranty Period will begin on the date of purchase, and remain effective as specified above. Proof of purchase and/or receipt will be required for all claims purposes.

Exclusions of Warranty:

The following will immediately and automatically render any and all warranties and/or guarantees, including but not limited to the ViewSonic Limited Warranty, as void:

1. Any product on which the serial number has been defaced, modified or removed.

2. Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, and/or failure to follow instructions as prescribed by ViewSonic.

3. Repair or attempted repair by someone other than a ViewSonic Licensed Technician.

4. Any damage resulting from shipments not made and/or insured by ViewSonic, and/or shipments made by ViewSonic for which recipient failed to notify ViewSonic of the damage claim within 48 hours upon receipt.

5. Removal and/or installation of any components not intended or prescribed by ViewSonic.

6. Causes external to the product, such as electric power fluctuations and/or failure.

7. Normal wear and tear.

8. Damage to, or abuse of, the coating on the surface of the display, including but not limited to cosmetic defects that do not affect functionality.

9. Any other cause which is not related to a manufacturer's defect.

10. Loss of, or damage to, the covered product due to mishandling, improper packaging by you, alteration, accident, electrical current fluctuations or failure to follow operating, maintenance or environmental instructions prescribed in the covered product's User Manual. In the event that ViewSonic determines, in its sole discretion, that the

return product is damaged due to one or more of these excluded causes, the customer will be billed for the cost of repairs.

11. ViewSonic will not be responsible for any damage to, loss of, or consequential loss from the inability to use, any programs, data or other information stored on any media or any part of any Product serviced hereunder. ViewSonic makes no representations or warranties whatsoever to keep confidential or secure any data stored on any media or any part of any Product serviced hereunder. ViewSonic will not be responsible for and hereby disclaims any and all liability for damage or loss to software, data, Programs, removable media, consumable, portable docking stations, carrying cases, or non-ViewSonic-branded products such as joysticks, printers, and/or scanners, that may occur as a result of repairs to, and/or by the replacement of any defective product. In order to avoid any and such losses or damages, please make a back-up of any and/or all dates) and Programs before returning your product to ViewSonic for replacement and/or repair(s).

12. Image burn-in and/or defective pixels/sub-pixels are not considered a manufacturer's defect. For a complete review of the details regarding the industry standard methodology ViewSonic uses to determine defective pixels/sub-pixels please visit our on-line Customer Support database at http://www.viewsonic.com/support/qa.cfm?topic=lcd&question=01.

Limitation of Implied Warranties:
THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION CONTAINED HEREIN INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Limitations of Liability:
VIEWSONIC'S LIABILITY IS LIMITED TO THE COST OF REPAIR OR REPLACEMENT OF THE PRODUCT. VIEWSONIC EXPRESSLY DISCLAIMS ANY AND ALL LIABILITY FOR DELAYS IN SHIPPING AND/OR ANY RESULTING DAMAGE(S) DUE TO LOSS OF USE FOR ANY AND ALL REASONS. IN NO EVENT WILL VIEWSONIC CORPORATION, AND ANY AND ALL OF ITS PRESENT, FORMER AND FUTURE REPRESENTATIVES BE LIABLE FOR SPECIAL INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES RELATING DIRECTLY OR INDIRECTLY TO THIS AGREEMENT. FURTHER, VIEWSONIC WILL NOT BE LIABLE FOR LOSS OF THE USE OF PRODUCT, LOSS OF DATA, LOSS OF TIME, LOSS OF PROFITS, LOSS OF BUSINESS OPPORTUNITY, LOSS OF GOODWILL, INTERFERENCE WITH BUSINESS RELATIONSHIPS OR OTHER COMMERCIAL LOSS, REGARDLESS OF WHETHER ADVISE VIEWSONIC IS ADVISED OF OR SHOULD HAVE KNOWN ABOUT THE POSSIBILITY OF SUCH DAMAGES.

How to get service:
1. For information on obtaining warranty service, call your ViewSonic dealer/reseller.
2. To obtain warranty service, please contact ViewSonic Customer Support for a Return Authorization number (RMA). You will be required to provide
   A. A copy of the dated sales slip.
   B. Your name.
   C. Your address.
   D. The serial number of the product.
   E. A description of the problem.
   F. Mobile and wireless products, customer should provide the user name and the password or disable password protections in order to allow ViewSonic access to the device for the performance of warranty service.
3. Bring or ship the product prepaid in the original container, with the associated accessories, to ViewSonic or any ViewSonic authorized service center.
4. For additional information or the name of the nearest ViewSonic service center, contact your ViewSonic dealer/reseller or ViewSonic.

NOTE: ViewSonic is not responsible for any returned product without an assigned RMA.

Effect of state law:
This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on implied warranties and/or do not allow the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

ASET Limited Warranty V1.b)   *Release Date: 16 AUGUST 2006*

ViewSonic®
the choice of professionals